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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,659	07/27/2004	Chung-Chieh Chang	10318-US-PA	4658

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JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE
7 FLOOR-1, NO. 100
ROOSEVELT ROAD, SECTION 2
TAIPEI, 100
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EXAMINER

KITOV, ZEEV

ART UNIT PAPER NUMBER

2836

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/710,659	Applicant(s) CHANG ET AL. (CM)	
	Examiner Zeev Kitov	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 4 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1 - 4 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 07/27/04, 05/27/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☒ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Examiner acknowledges a submission of the amended Drawings, Amendment and Arguments filed on May 27, 2005. Claims 1 – 5 are amended. The Applicant's Arguments have been given careful consideration but they have been found non-persuasive.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

1. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is due to a following statement: "said starter relay and timer relay are connected in parallel". Neither the claim, nor the Specification explains this kind of connection. If it is electromechanical relay then a parallel connection can be made either between the coils (solenoids) or between their contacts. The results such connections would be totally different. If the parallel connection is made between the coils then whenever timer is activated, the other starter relay is activated too. However, the starter relay controls the frequency converter and the other controls the timer switch. If the parallel connection is made between their contacts then there is a question as to what kind of contacts is used, i.e. normally closed or normally open. The results of such connections would be totally different. An example of controversy between normally

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open vs. normally closed contacts is well demonstrated in Fig. 5, in which "the switches 33 and 34 are alternate switches; i.e., if either one of the two switches is on, the other is off". This lack of clear description prevents further understanding of the circuit functioning, and therefore examination of the claim. For purpose of examination patentable weight is not given to the recited limitation.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is due to a following statement: "wherein said timer switch and said switch circuit are connected in parallel forming a first parallel circuit". The switch circuit is shown in Fig. 3 – 5 only as a functional block. It is totally unclear how the switch is connected in parallel to the circuit, i.e. what part of the circuit it bypasses. If the switch circuit is an electromechanical relay, it can be connected either in parallel to its coil, or to its contacts. The role of the timer switch in each of these cases is totally different. The Specification is silent with regard to this matter. This deficiency prevents further understanding of the circuit functioning, and therefore, examination of the claim. For purpose of examination patentable weight is not given to the recited limitation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Matsko et al. (US 4,331,996). Regarding Claims 1 and 3, The AAPA discloses a starter circuit (element 23 in Fig. 1) determining whether or not to turn on/off the control circuit; a starter relay (element 13 in Fig. 1) turning on the frequency converter, wherein when a voltage level of a power supply to the control circuit is below a first predetermined voltage level, the starter relay is turned off (Specification paragraphs [0006 – 0008]). It further discloses the starter relay as being the switch activating and deactivating the frequency converter (Specification paragraphs [0006 – 0008]). However, it does not disclose activation of the starter relay in a power-up process. Matsko et al. disclose the circuit wherein when the voltage level of the power supply to the control circuit is raised to above a second predetermined voltage level defined by the zener diode (element ZD5 in Fig. 1) voltage and the voltage divider R10, R13 and R6 (the resistor R7 is shorted by saturated output of comparator CO3) (see col. 6, lines 18 – 47), the starter relay (element UVRC in Fig. 1) is turned on. Both references have the same problem solving area, namely providing protection to the electrical equipment against undervoltages. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the AAPA solution by introducing the second voltage level and making an activation (or reactivation) of the starter relay conditioned on reaching the second voltage level different from the first voltage level, because as Matsko et al. state (col. 28 – 29), this hysteresis loop effect prevents chattering. It is to be noted that the same

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described above process takes place not only at the time of low voltage drop interruption, but at the start up period too.

It further discloses a timer relay (elements R1 – R3, C1 – C3, CO1 – CO3 in Fig. 1), wherein when the voltage level of the power supply to the control circuit is below the first predetermined voltage level defined by the zener diode (element ZD5 in Fig. 1) voltage and the voltage divider R10, R13, R6 and R7 (the R7 is not is shorted by the floating output of comparator CO3) (see col. 6, lines 18 – 47), the starter relay (element UVRC in Fig. 1) remains on for a predetermined time period defined by the delay circuit (elements C1 – C3, R1 – R3 in Fig. 1). The timer relay determines whether or not to turn on/off the timer switch (element UVRC in Fig. 1). As to parallel connection of the starter relay and the timer relay, in the AAPA system modified according to Matsko et al, the timer relay being supplied by the power at the same time as the starter relay satisfies the Claim limitation of parallel connection with respect to the power supply.

Regarding Claim 4, Matsko et al. disclose the system wherein when the voltage level of the power supply to the control circuit do not rise to above the second predetermined voltage level during the predetermined period, the timer relay is turned off. Indeed, if the voltage level of the power supply to the control circuit (including the timer of Matsko et al.) does not rise to above the second predetermined voltage defined by the zener diode (element ZD5 in Fig. 1) and voltage divider (elements R10, R13 and R6, since the resistor R7 is shorted by the output of comparator CO3 in Fig. 1) during the predetermined period defined by the charging time of capacitors (C1 – C3 through

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resistors R1 – R3), the timer relay remains turned off. A motivation for modification of the primary reference is the same as above.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Matsko et al. and Solomon (US 5,053,978). As was stated above, AAPA and Matsko et al. disclose all the elements of Claim 1. However, regarding Claim 2, they do not disclose the stop-reset switch connected in parallel to the timer relay. Solomon discloses the stop-reset switch (element 102 in Fig. 6) and the timer relay (element 96 in Fig. 6) connected in parallel; the stop-reset switch position determines whether the timer relay will be active or not (col. 8, lines 15 – 43). Both references have the same problem solving area, namely providing activation and resetting of the process controlling system. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified the AAP by adding the bypass switch to the time delay relay according to Solomon, because as Solomon states (col. 8, lines 15 – 21), the bypass switch is necessary is to be used when the computer is to be enabled to reset itself in accordance with a preprogrammed event, for example, if certain measurements are out of range, the computer can be programmed to perform the system reset without delay.

Response to Arguments

Applicant in his Remarks attempts to cure deficiency of Claim 1 by explanation of parallel connection between the starter relay and the timer relay. According to him, it

“means that the voltage difference between the connected ends of the two devices are the same”. “That is, the voltage difference between the right and left ends of the starter relay 26 shown in Fig. 3 is the same as voltage difference between the right and the left ends of the timer relay 25”.

However, neither the claim, nor the Specification explains this kind of connection. If it is electromechanical relay then a parallel connection can be made either between the coils (solenoids) or between their contacts. The results would be totally different. If the parallel connection is made between the coils then whenever timer is activated, the other starter relay is activated too. However, the starter relay controls the frequency converter and the other controls the timer switch. If the parallel connection is made between their contacts then again the question arises as to what kind of contacts are used, i.e. normally closed or normally open. Each of the options will bring totally different result.

Applicant further argues: “Even both relays form an OR logic connection, it means that the “result of the OR logic” is obtained on the right ends of the starter relay 24 and timer relay 25 but not means that whenever timer is activated, the starter relay is activated too”. The last sentence provides a hint that it is their contacts that are connected in parallel. However, as was stated in the Court Decision: “It is the claims that define the claimed invention, and it is the claims, not specifications that are anticipated or unpatentable”. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064. Accordingly, the Applicant’s arguments cannot be imported into the claim.

Since according to 35 USC 112 rejections, the patentable weight is given neither to the timer switch circuit connected in parallel, nor to the starter relay and timer relay connected in parallel, all the Arguments regarding these limitations are moot.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zeev Kitov whose current telephone number is (571) 272 - 2052. The examiner can normally be reached on 8:00 – 4:30. If attempts to reach examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571) 272 – 2800, Ext. 36. The fax phone number for organization where this application or proceedings is assigned is (703) 872-9306 for all communications.

ZK
8-19-05

Stephen W. Jackson
8-19-05

STEPHEN W. JACKSON
PRIMARY EXAMINER

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Z.K.
02/13/2005

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